GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: January 24, 2006, 11:28:32 ; Search time 17.6732 Seconds
(without alignments)
646.394 Million cell updates/sec

Title: US-10-680-349-42_COPY_61_86
Perfect score: 136
Sequence: 1 PINGTNSLTKKVFGLKKDGDITKKDD 26

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_21:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*
9: geneseqp2005s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	136	100.0	165	2	AAY06970	Aay06970 E. canis
2	136	100.0	280	5	AAU96116	Aau96116 Ehrlichia
3	136	100.0	280	5	ABG77958	Abg77958 Ehrlichia
4	136	100.0	280	6	ADA09781	Ada09781 E. canis
5	136	100.0	280	9	ADW04274	Adw04274 Ehrlichia
6	97	71.3	283	2	AAY06944	Aay06944 E. chafee
7	97	71.3	283	5	AAU96106	Aau96106 Ehrlichia
8	97	71.3	283	5	AAU73413	Aau73413 Ehrlichia
9	97	71.3	283	5	ABG77936	Abg77936 Ehrlichia
10	97	71.3	283	6	ADA09737	Ada09737 E. chaffe
11	97	71.3	283	9	ADW04230	Adw04230 Erlidhia
12	52.5	38.6	339	8	ADN21449	Adn21449 Bacterial
13	52	38.2	377	6	ABU29155	Abu29155 Protein e
14	52	38.2	378	7	ADH88024	Adh88024 Enterococ
15	52	38.2	481	6	ABU20708	Abu20708 Protein e
16	51	37.5	525	8	ADS44601	Ads44601 Bacterial
17	50.5	37.1	873	8	ADS22299	Ads22299 Bacterial
18	50	36.8	283	9	ADW04295	Adw04295 Cowdria r
19	50	36.8	284	5	AAU96111	Aau96111 Cowdria r
20	50	36.8	302	6	ABP79144	Abp79144 N. gonorr
21	50	36.8	302	6	ABP76775	Abp76775 N. gonorr
22	49.5	36.4	521	7	ABO23592	Abo23592 Rickettsi
23	49	36.0	235	9	ADW17535	Adw17535 Pinus rad
24	49	36.0	345	7	ADC00818	Adc00818 Enterohae
25	49	36.0	472	8	ADN46936	Adn46936 Thermococ
26	49	36.0	511	5	ABP65734	Abp65734 Bifidobac
27	49	36.0	577	5	ABP27646	Abp27646 Streptoco
28	49	36.0	577	6	ABU46702	Abu46702 Protein e
29	49	36.0	629	7	ADD68790	Add68790 Streptoco
30	49	36.0	629	8	ADJ61994	Adj61994 Group A s
31	49	36.0	1992	2	AAW04505	Aaw04505 Moraxella
32	49	36.0	1992	4	AAB69137	Aab69137 M. catarr
33	49	36.0	1992	4	AAB69133	Aab69133 M. catarr
34	49	36.0	2047	4	AAB69134	Aab69134 M. catarr
35	48.5	35.7	416	2	AAR74151	Aar74151 Mango cla
36	48.5	35.7	416	2	AAW44331	Aaw44331 Class II
37	48.5	35.7	476	4	ABG99093	Abg99093 Pyrococcu
38	48.5	35.7	476	8	ADL23827	Adl23827 Pyrococcu
39	48.5	35.7	557	4	AAU20133	Aau20133 Human DNA
40	48.5	35.7	557	5	ABG91382	Abg91382 Novel hum
41	48.5	35.7	585	8	ADG32050	Adg32050 Mutant B_
42	48.5	35.7	594	8	ADG32068	Adg32068 Mutant B_
43	48.5	35.7	616	6	ABR41881	Abr41881 Predicted
44	48.5	35.7	616	6	AAE36781	Aae36781 Human cas
45	48.5	35.7	645	2	AAW29653	Aaw29653 Human sec

ALIGNMENTS

RESULT 1
AAY06970
ID AAY06970 standard; protein; 165 AA.
XX
AC AAY06970;
XX
DT 05-JUL-1999 (first entry)
XX
DE E. canis P30-10protein.
XX
KW Outer membrane protein; OMP; Ehrlichia chafeensis; E. canis; P30;
KW detection; dog.
XX
OS Ehrlichia canis.
XX
PN WO9913720-A1.
XX
PD 25-MAR-1999.
XX
PF 18-SEP-1998; 98WO-US019600.
XX
PR 19-SEP-1997; 97US-0059353P.
XX
PA (OHIS) UNIV OHIO STATE.
XX
PI Rikihisa Y, Ohashi N;
XX
DR WPI; 1999-254290/21.
DR N-PSDB; AAX34770.
XX
PT Novel outer membrane proteins from Ehrlichia chaffeensis and Ehrlichia
PT canis.
XX
PS Disclosure; Fig 30B; 55pp; English.
XX
CC The invention provides isolated outer membrane proteins (OMP) from
CC Ehrlichia chafeensis and E. canis. The E. chaffeensis proteins form part
CC of the OMP family and consist of proteins OMP-1, -1(B to Z) shown in
CC AAY06943-958. The E. canis proteins form part of the P30 family and
CC consist of proteins shown in AAY06959-970. The proteins and genes are
CC used to detect E. chaffeensis in patients and E. canis in dogs
XX
SQ Sequence 165 AA;

Query Match 100.0%; Score 136; DB 2; Length 165;
Best Local Similarity 100.0%; Pred. No. 2.5e-12;
Matches 26; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 PINGTNSLTKKVFGLKKDGDITKKDD 26
              ||||||||||||||||||||||||||
Db         61 PINGTNSLTKKVFGLKKDGDITKKDD 86
```

RESULT 2
AAU96116
ID AAU96116 standard; protein; 280 AA.
XX
AC AAU96116;
XX
DT 02-JUL-2002 (first entry)
XX
DE Ehrlichia canis p28-2.
XX
KW Ehrlichia canis infection; vaccine; serodiagnostic; p28; antibacterial.
XX
OS Ehrlichia canis.
XX
PN WO200222782-A2.
XX
PD 21-MAR-2002.
XX
PF 12-SEP-2001; 2001WO-US028759.
XX
PR 12-SEP-2000; 2000US-00660587.
XX
PA (RERE-) RES DEV FOUND.
XX
PI Walker DH, Yu X, Mcbride JW;
XX
DR WPI; 2002-351882/38.
DR N-PSDB; ABK68876.
XX
PT New recombinant homologous 28 kilodalton immunodominant protein from
PT Ehrlichia canis, useful for treating Ehrlichia canis infections.
XX
PS Claim 16; Fig 14; 106pp; English.
XX
CC The invention relates to a recombinant homologous 28 kDa immunodominant
CC protein, P28, (I), of Ehrlichia canis. (I), a 28-kDa antigen preferably
CC dispersed in a pharmaceutically acceptable carrier, is useful for
CC inhibiting E. canis infection in a subject. (I) is useful in the
CC development of vaccines and serodiagnostics that are particularly
CC effective for disease prevention and serodiagnosis. AAU96100-AAU96118
CC represent the 28-kDa antigen amino acid sequences of the invention
XX
SQ Sequence 280 AA;

Query Match 100.0%; Score 136; DB 5; Length 280;
Best Local Similarity 100.0%; Pred. No. 4.8e-12;
Matches 26; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 PINGTNSLTKKVFGLKKDGDITKKDD 26
              ||||||||||||||||||||||||||
Db         61 PINGTNSLTKKVFGLKKDGDITKKDD 86
```

RESULT 3
ABG77958
ID ABG77958 standard; protein; 280 AA.
XX
AC ABG77958;
XX
DT 15-NOV-2002 (first entry)
XX
DE Ehrlichia canis outer membrane protein (P30F) #9.
XX
KW Outer membrane protein; OMP; P30F; ehrlichiosis; infection.
XX
OS Ehrlichia canis.
XX
PN US2002120115-A1.
XX
PD 29-AUG-2002.
XX
PF 28-JAN-2002; 2002US-00059964.
XX
PR 19-MAY-1999; 99US-00314701.
XX
PA (RIKI/) RIKIHISA Y.
PA (OHAS/) OHASHI N.
XX
PI Rikihisa Y, Ohashi N;
XX
DR WPI; 2002-618954/66.
DR N-PSDB; ABS63299.
XX
PT Isolated polynucleotide encoding an outer membrane protein of E.canis or
PT E.chaffeensis used in the diagnosis of infection.
XX
PS Claim 10; Fig 30B; 49pp; English.
XX
CC The invention relates to an isolated polynucleotide encoding an outer
CC membrane protein (OMP) of Ehrlichia canis or Ehrlichia chaffeensis used
CC in the diagnosis of infection. An infection such as human ehrlichiosis or
CC canine ehrlichiosis can be diagnosed by providing a serum sample from the
CC patient, providing a polypeptide or mixture of polypeptides, contacting
CC the sample with the polypeptide and assaying for the formation of a
CC complex between antibodies in the serum sample and the polypeptide, where
CC formation of a complex is indicative of infection with E. chaffeensis.
CC This sequence represents an Ehrlichia outer membrane protein of the
CC invention
XX
SQ Sequence 280 AA;

Query Match 100.0%; Score 136; DB 5; Length 280;
Best Local Similarity 100.0%; Pred. No. 4.8e-12;
Matches 26; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 PINGTNSLTKKVFGLKKDGDITKKDD 26
              ||||||||||||||||||||||||||
Db         61 PINGTNSLTKKVFGLKKDGDITKKDD 86
```

RESULT 4
ADA09781
ID ADA09781 standard; protein; 280 AA.
XX
AC ADA09781;
XX
DT 06-NOV-2003 (first entry)
XX
DE E. canis outer membrane protein P30-10.
XX
KW outer membrane protein; circulating leukocyte; monocytic ehrlichiosis;
KW Rocky Mountian spotted fever; canine ehrlichiosis; antigen.
XX
OS Ehrlichia canis.
XX
PN US6544517-B1.
XX
PD 08-APR-2003.
XX
PF 19-MAY-1999; 99US-00314701.
XX
PR 18-SEP-1998; 98US-0100843P.
XX
PA (OHIS) UNIV OHIO STATE RES FOUND.
XX
PI Rikihisa Y, Ohashi N;
XX
DR WPI; 2003-553952/52.
DR N-PSDB; ADA09780.
XX

SQ Sequence 283 AA;

Query Match 82.3%; Score 1202.5; DB 6; Length 283;
Best Local Similarity 79.5%; Pred. No. 3e-112;
Matches 225; Conservative 26; Mismatches 29; Indels 3; Gaps 1;

```
Qy          1 MNYKKILVRSALISLMSILPYQSFADPVGSR---TNDNKEGFYISAKYNPSISHFRKFSA 57
              |||||| | |||||||||||||||||||| |     ||::|||||| ||||||||||||||
Db          1 MNYKKIFVSSALISLMSILPYQSFADPVTSNDTGINDSREGFYISVKYNPSISHFRKFSA 60

Qy         58 EETPINGTNSLTKKVFGLKKDGDITKKDDFTRVAPGIDFQNNLISGFSGSIGYSMDGPRI 117
              || ||||  |:||||||||||||| :  :| |  | ::|||||||||||||||:||||||
Db         61 EEAPINGNTSITKKVFGLKKDGDIAQSANFNRTDPALEFQNNLISGFSGSIGYAMDGPRI 120

Qy        118 ELEAAYQQFNPKNTDNNDTDNGEYYKHFALSRKDAMEDQQYVVLKNDGITFMSLMVNTCY 177
              |||||||:|: || ||||::|:|||:| |||:||: |::|||||:|||||||||||||||
Db        121 ELEAAYQKFDAKNPDNNDTNSGDYYKYFGLSREDAIADKKYVVLKNEGITFMSLMVNTCY 180

Qy        178 DITAEGVSFVPYACAGIGADLITIFKDLNLKFAYQGKIGISYPITPEVSAFIGGYYHGVI 237
              ||||||| |:|||||:||||| :||| ||||:||||||||||||||||||||||||||||
Db        181 DITAEGVPFIPYACAGVGADLINVFKDFNLKFSYQGKIGISYPITPEVSAFIGGYYHGVI 240

Qy        238 GNKFEKIPVITPVVLNDAPQTTSASVTLDVGYFGGEIGMRFTF 280
              || | |||||||||| |||||| ||:| ||||||:|:||||
Db        241 GNNFNKIPVITPVVLEGAPQTTSALVTIDTGYFGGEVGVRFTF 283
```

RESULT 10
ADW04230
ID ADW04230 standard; protein; 283 AA.
XX
AC ADW04230;
XX
DT 24-MAR-2005 (first entry)
XX
DE Erlichia chaffeensis outer membrane protein (OMP), OMP-1B.
XX
KW DNA purification; diagnosis; outer membrane protein; OMP; P30F protein;
KW infection; vaccine.
XX
OS Ehrlichia chaffeensis.
XX

FH	Key	Location/Qualifiers
FT	Peptide	1. .25
FT		/label= Signal_peptide
FT	Protein	26. .283
FT		/note= "Erlichia chaffeensis mature OMP protein"
FT	Region	26. .41
FT		/note= "Semivariable region (SV)"
FT	Region	82. .94
FT		/note= "Hypervariable region (HV1)"
FT	Region	145. .163
FT		/note= "Hypervariable region (HV2)"
FT	Region	248. .272
FT		/note= "Hypervariable region (HV3)"

XX
PN US2004265334-A1.
XX
PD 30-DEC-2004.
XX
PF 29-JUL-2004; 2004US-00901774.
XX
PR 18-SEP-1998; 98US-0100843P.
PR 19-MAY-1999; 99US-00314701.
PR 28-JAN-2002; 2002US-00059964.
XX
PA (RIKI/) RIKIHISA Y.
PA (OHAS/) OHASHI N.
XX
PI Rikihisa Y, Ohashi N;
XX
DR WPI; 2005-064871/07.
DR N-PSDB; ADW04229.
XX
PT New polynucleotide encoding an outer membrane protein (OMP) of Ehrlichia
PT canis or Ehrlichia chaffeensis, useful in preparing a composition for
PT diagnosing or preventing E. canis or E. chaffeensis infection.
XX
PS Disclosure; SEQ ID NO 4; 122pp; English.
XX
CC The invention relates to nucleic acid sequences encoding outer membrane
CC proteins (OMP) of Erlichia chaffeensis (designated as OMP proteins) and
CC Ehrlichia canis (designated as P30F proteins). The OMP polynucleotide is
CC useful in preparing a composition for diagnosing, treating or preventing
CC an infection with Ehrlichia canis or Ehrlichia chaffeensis. The present
CC sequence is the Erlichia chaffeensis OMP protein.
XX
SQ Sequence 283 AA;

Query Match 82.3%; Score 1202.5; DB 9; Length 283;
Best Local Similarity 79.5%; Pred. No. 3e-112;
Matches 225; Conservative 26; Mismatches 29; Indels 3; Gaps 1;

```
Qy          1 MNYKKILVRSALISLMSILPYQSFADPVGSR---TNDNKEGFYISAKYNPSISHFRKFSA 57
              |||||| | |||||||||||||||||||| |     ||::|||||| ||||||||||||||
Db          1 MNYKKIFVSSALISLMSILPYQSFADPVTSNDTGINDSREGFYISVKYNPSISHFRKFSA 60

Qy         58 EETPINGTNSLTKKVFGLKKDGDITKKDDFTRVAPGIDFQNNLISGFSGSIGYSMDGPRI 117
              || ||||  |:||||||||||||| :  :| |  | ::|||||||||||||||:||||||
Db         61 EEAPINGNTSITKKVFGLKKDGDIAQSANFNRTDPALEFQNNLISGFSGSIGYAMDGPRI 120

Qy        118 ELEAAYQQFNPKNTDNNDTDNGEYYKHFALSRKDAMEDQQYVVLKNDGITFMSLMVNTCY 177
              |||||||:|: || ||||::|:|||:| |||:||: |::|||||:|||||||||||||||
Db        121 ELEAAYQKFDAKNPDNNDTNSGDYYKYFGLSREDAIADKKYVVLKNEGITFMSLMVNTCY 180

Qy        178 DITAEGVSFVPYACAGIGADLITIFKDLNLKFAYQGKIGISYPITPEVSAFIGGYYHGVI 237
              ||||||| |:|||||:||||| :||| ||||:||||||||||||||||||||||||||||
Db        181 DITAEGVPFIPYACAGVGADLINVFKDFNLKFSYQGKIGISYPITPEVSAFIGGYYHGVI 240

Qy        238 GNKFEKIPVITPVVLNDAPQTTSASVTLDVGYFGGEIGMRFTF 280
              || | |||||||||| |||||| ||:| ||||||:|:||||
Db        241 GNNFNKIPVITPVVLEGAPQTTSALVTIDTGYFGGEVGVRFTF 283
```

RESULT 11
AAY06970
ID AAY06970 standard; protein; 165 AA.
XX
AC AAY06970;
XX
DT 05-JUL-1999 (first entry)
XX
DE E. canis P30-10protein.
XX
KW Outer membrane protein; OMP; Ehrlichia chafeensis; E. canis; P30;
KW detection; dog.
XX
OS Ehrlichia canis.
XX
PN WO9913720-A1.
XX
PD 25-MAR-1999.
XX
PF 18-SEP-1998; 98WO-US019600.
XX
PR 19-SEP-1997; 97US-0059353P.
XX
PA (OHIS) UNIV OHIO STATE.
XX
PI Rikihisa Y, Ohashi N;
XX
DR WPI; 1999-254290/21.
DR N-PSDB; AAX34770.
XX
PT Novel outer membrane proteins from Ehrlichia chaffeensis and Ehrlichia
PT canis.

```
XX
PS   Disclosure; Fig 30B; 55pp; English.
XX
CC   The invention provides isolated outer membrane proteins (OMP) from
CC   Ehrlichia chafeensis and E. canis. The E. chaffeensis proteins form part
CC   of the OMP family and consist of proteins OMP-1, -1(B to Z) shown in
CC   AAY06943-958. The E. canis proteins form part of the P30 family and
CC   consist of proteins shown in AAY06959-970. The proteins and genes are
CC   used to detect E. chaffeensis in patients and E. canis in dogs
XX
SQ   Sequence 165 AA;

  Query Match             48.9%;  Score 715;  DB 2;  Length 165;
  Best Local Similarity   81.9%;  Pred. No. 1.8e-63;
  Matches  145;  Conservative    4;  Mismatches   16;  Indels   12;  Gaps    2;

Qy          1 MNYKKILVRSALISLMSILPYQSFADPVGSRTNDNKEGFYISAKYNPSISHFRKFSAEET 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MNYKKILVRSALISLMSILPYQSFADPVGSRTNDNKEGFYISAKYNPSISHFRKFSAEET 60

Qy         61 PINGTNSLTKKVFGLKKDGDITKKDDFTRVAPGIDFQNNLISGFSGSIGYSMDGPRIELE 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 PINGTNSLTKKVFGLKKDGDITKKDDFTRVAPGIDFQNNLISGFSGSIGYSMDGPRIELE 120

Qy        121 AAYQQFNPKNTDNNDTDNGEYYKHFALSRKDAMEDQQYVVLKNDGITFMSLMVNTCY 177
              |||     |: |||||||||||||||           |:|     |: |  : :| |
Db        121 AAYHNLIQKH-DNNDTDNGEYYKHFA-----------YLVKMPWKISHMLFLKMTAY 165


RESULT 12
AAY06943
ID   AAY06943 standard; protein; 281 AA.
XX
AC   AAY06943;
XX
DT   27-AUG-2003  (revised)
DT   05-JUL-1999  (first entry)
XX
DE   E. chafeensis OMP-1 protein.
XX
KW   Outer membrane protein; OMP; Ehrlichia chafeensis; E. canis; P30;
KW   detection; dog.
XX
OS   Ehrlichia chaffeensis.
XX
PN   WO9913720-A1.
XX
PD   25-MAR-1999.
XX
PF   18-SEP-1998;   98WO-US019600.
XX
PR   19-SEP-1997;   97US-0059353P.
XX
PA   (OHIS ) UNIV OHIO STATE.
XX
PI   Rikihisa Y,  Ohashi N;
XX
DR   WPI; 1999-254290/21.
DR   N-PSDB; AAX34743.
XX
PT   Novel outer membrane proteins from Ehrlichia chaffeensis and Ehrlichia
PT   canis.
XX
PS   Disclosure; Fig 3B; 55pp; English.
XX
CC   The invention provides isolated outer membrane proteins (OMP) from
CC   Ehrlichia chafeensis and E. canis. The E. chaffeensis proteins form part
CC   of the OMP family and consist of proteins OMP-1, -1(B to Z) shown in
CC   AAY06943-958. The E. canis proteins form part of the P30 family and
CC   consist of proteins shown in AAY06959-970. The proteins and genes are
CC   used to detect E. chaffeensis in patients and E. canis in dogs. (Updated
CC   on 27-AUG-2003 to correct OS field.)
XX
SQ   Sequence 281 AA;

  Query Match             44.1%;  Score 644.5;  DB 2;  Length 281;
  Best Local Similarity   48.1%;  Pred. No. 5e-56;
  Matches  140;  Conservative   41;  Mismatches   89;  Indels   21;  Gaps    6;

Qy          1 MNYKKILVRSALISLMSILPYQSFADPVGSRTNDNKEGFYISAKYNPSISHFRKFSAEET 60
              |||||: : ||||||:| ||  ||:|| ||  | |   |||| || || |||  |||:|
Db          1 MNYKKVFITSALISLISSLPGVSFSDPAGSGINGN---FYISGKYMPSASHFGVFSAKE- 56

Qy         61 PINGTNSLTKKVFGLKKDGD------ITKKDDFTRVAPGIDFQNNLISGFSGSIGYSMDG 114
                 :|  |||||:: |       :  | ||       ::||   ||:|:|||||||
Db         57 ----ERNTTVGVFGLKQNWDGSAISNSSPNDVFTVSNYSFKYENNPFLGFAGAIGYSMDG 112

Qy        115 PRIELEAAYQQFNPKNTDNNDTDNGEYYKHFALSRKDAME----DQQYVVLKNDGITFMS 170
              |||||| :|: |: ||  ||     | ::: |||   | :      :| |||:|:  :|
Db        113 PRIELEVSYETFDVKNQGNN--YKNEAHRYCALSHNSAADMSSASNNFVFLKNEGLLDIS 170

Qy        171 LMVNTCYDITAEGVSFVPYACAGIGADLITIFKDLNLKPAYQGKIGISYPITPEVSAFIG 230
              |:| |||:  ||: | || ||||| ||:::|:  | | :||||:|:|| |:|| | |||
Db        171 FMLNACYDVVGEGIPFSPYICAGIGTDLVSMFEATNPKISYQGKLGLSYSISPEASVFIG 230

Qy        231 GYYHGVIGNKFEKIPVITPVVLNDAPQ-TTSASVTLDVGYFGGEIGMRFTF 280
              |::| ||||:|  || | |     | :   | | ||| :|| |:| || |
Db        231 GHFHKVIGNEFRDIPTIIPTGSTLAGKGNYPAIVILDVCHFGIELGGRFVF 281


RESULT 13
AAU96105
ID   AAU96105 standard; protein; 281 AA.
XX
AC   AAU96105;
XX
DT   07-AUG-2003  (revised)
DT   02-JUL-2002  (first entry)
XX
DE   Ehrlichia chafeensis P28.
XX
KW   Ehrlichia canis infection; vaccine; serodiagnostic; p28; antibacterial.
XX
OS   Ehrlichia chaffeensis.
XX
PN   WO200222782-A2.
XX
PD   21-MAR-2002.
XX
PF   12-SEP-2001; 2001WO-US028759.
XX
PR   12-SEP-2000; 2000US-00660587.
XX
PA   (RERE-) RES DEV FOUND.
XX
PI   Walker DH,  Yu X,  Mcbride JW;
XX
DR   WPI; 2002-351882/38.
XX
PT   New recombinant homologous 28 kilodalton immunodominant protein from
PT   Ehrlichia canis, useful for treating Ehrlichia canis infections.
XX
PS   Example 3; Fig 3; 106pp; English.
XX
CC   The invention relates to a recombinant homologous 28 kDa immunodominant
CC   protein, P28, (I), of Ehrlichia canis. (I), a 28-kDa antigen preferably
CC   dispersed in a pharmaceutically acceptable carrier, is useful for
CC   inhibiting E. canis infection in a subject. (I) is useful in the
CC   development of vaccines and serodiagnostics that are particularly
CC   effective for disease prevention and serodiagnosis. AAU96100-AAU96118
CC   represent the 28-kDa antigen amino acid sequences of the invention.
CC   (Updated on 07-AUG-2003 to correct OS field.)
XX
SQ   Sequence 281 AA;

  Query Match             44.1%;  Score 644.5;  DB 5;  Length 281;
```